See Director's Corner on page 3

MARSHALL STAR
Marshall Space Flight Center March 2, 2000
"We bring people to space — We bring space to people"

March marks 'Property Awareness Month' at Marshall

by Roy Malone

Marshall Space Flight Center Director Art Stephenson has declared March "Property Awareness Month." In support of this observance, the Center Operations Directorate will conduct its first "Property Awareness Campaign" at the Center.

"The objective of the Property Awareness Campaign is to promote property management awareness at every level of the Center and to train and educate Marshall civil servants and contractors on the new property management procedures and their property management responsibilities," said Sheila Cloud, director of Center Operations.

Plans for the campaign include property awareness booths at Center locations to be operated by Outsourcing Desktop Initiative for NASA (ODIN), Consolidated Space Operations Contract (CSOC), Program Information Systems Mission Services (PrISMS) and NASA property personnel knowledgeable in all aspects of property management.

These booths will be set up near the cafeterias in Bldgs. 4203, 4610, 4708 and 4471. All Marshall personnel are encouraged to stop by from 11 a.m.-1 p.m. on Tuesdays and Thursdays to "ask the experts" property questions.

The campaign will feature mandatory Web-based property training. The training site will be available on Inside Marshall at: http://eodd.msfc.nasa.gov/property/

For personnel who do not have access to a computer, live training sessions will be provided from 2-3 p.m. Wednesdays throughout the month in the following locations: March 8, Bldg. 4200, room 409; March 15, Bldg. 4200, room 509; March 22, Bldg. 4200, room 509; and March 29, 2-3 p.m., Bldg. 4200, room 409.

The writer is manager of the Logistics Services Department.

NASA's 7th annual 'Great Moonbuggy Race' on track for April 7-8 at Space & Rocket Center

by George Hayward

More than 40 teams, representing colleges and high schools from across the country and Puerto Rico, will roll into Huntsville, Ala., April 7-8 for the 7th annual Great Moonbuggy Race at the U.S. Space & Rocket Center.

The event is sponsored by the Marshall Center, the U.S. Space & Rocket Center and the American Institute of Aeronautics and Astronautics.

The race is inspired by development of the first lunar roving vehicle, which was designed and tested at Marshall. The event challenges students to design and build a human-powered vehicle to address engineering problems similar to those faced by the original Marshall Center lunar rover team.

For instance, prior to the race the unassembled vehicle must occupy a space no more than 4 feet high, 4 feet wide and 4 feet long. During the race, each vehicle is powered by two team members, one male and one female, over a half-mile obstacle course of simulated moonscape terrain.

Winners in each category – high school and college – are determined by the fastest vehicle assembly time plus time through the course.

An additional prize is awarded to the team with the best technical approach to solving the engineering problem of navigating the "lunar" surface.

Event details, including the rules, information on the course and photos, can be found at the Great Moonbuggy Race Web site at:
http://moonbuggy.msfc.nasa.gov

Individuals with questions about the event may phone Frank Brannon, the Marshall Center's university relations coordinator, at (256) 544-5920, or e-mail him at Frank.Brannon@msfc.nasa.gov.

The writer, employed by ASRI, supports the Media Relations Department.

"Stay in Step with Safety"
— Safety slogan submitted by
Erin Coggins, SCSC

Breast cancer screening aid cleared for diagnostic use

The war against breast cancer has a new weapon, thanks to an advanced sensor developed at NASA's Jet Propulsion Laboratory in Pasadena, Calif.

The device, called the BioScan System™, was developed by OmniCorder Technologies Inc. of Stony Brook, N.Y. OmniCorder received clearance to market the system from the Food and Drug Administration in December 1999.

Studies have determined that cancer cells exude nitric oxide. This causes changes in blood flow in tissue surrounding cancer that can be detected by the sensor. The BioScan System™ is sensitive to temperature changes of less than .027 degree Fahrenheit (.015 degree Celsius) and has a speed of over 200 frames per second. It causes no discomfort to the patient and uses no ionizing radiation.

"Clearance for use of this noninvasive diagnostic tool is an important milestone for us," said OmniCorder president and Chief Executive Officer Mark Fauci, who noted that the device also has been cleared to be marketed for other applications.

The sensor, called the Quantum Well Infrared Photodetector was invented by Dr. Sarath Gunapala, principal engineer of the Jet Propulsion Laboratory's device research and applications section. The digital sensor detects the infrared energy emitted from the body, thus "seeing" the minute differences associated with blood flow changes. Earlier versions of the photodetector had potential applications, such as locating hot spots during fires and observing volcanoes.

"It is a great pleasure to see something I invented being used for public benefit," said Gunapala, "especially in medicine and even more so in the early detection of cancer."

The BioScan System™ also uses Dynamic Area Telethermometry, invented by Dr. Michael Anbar, founding scientist of OmniCorder. The two technologies work together to image the target area and to provide the physician with immediate diagnostic information.

The Jet Propulsion Laboratory is a division of the California Institute of Technology in Pasadena, Calif.

Groundhog Job Shadowing Day 2000

Marshall sponsors visiting students during February

Nine area high school students visited Marshall on Wednesdays during February to watch employees at work as part of Groundhog Job Shadowing Day 2000, a nationally promoted event that started on Feb. 2, Groundhog Day. The Huntsville/Madison County Chamber of Commerce and the Marshall Education Programs Department worked together on this program, designed to assure a skilled and available work force for the future.

Photo by Emmett Given, NASA/Marshall Space Flight Center

Irsha Maske, left, of New Century Technology High School, learns about the procurement process for International Space Station racks from Mike Fowler of the Procurement Office.

Courtesy photo

Ken Mills, left, employed by CSC/Wang, shows Josh Converse, center, from New Century Technology High School, and Michael McLean, the PriSMS contracting officer, a large format color print processor and discusses state-of-the-art imaging techniques at Imaging Services.

Photo by Terry Leibold, Marshall Space Flight Center

Nancy Gibson, seated, lead of the Ground Support Equipment and Mechanisms Design Group, explains her job to Sandra Watkins, a student at Johnson High School.

Director initiates steps to open communication


Art Stephenson

For the past few months, I have been leading the mishap investigation of the Mars Climate Orbiter. The final report is complete and will be released soon. I hope this report will make a difference across the Agency in helping to provide guidance to program and project teams wrestling with the challenge of mission success while being constrained by very tight resources.

I encourage everyone who is associated with Marshall projects to read this report and to use the checklist it provides.

Since being appointed by NASA Administrator Dan Goldin to lead the investigation board, I have not been able to interact with the Marshall team as I would like. To improve this, I will be moving around the Center, having informal, impromptu meetings with various groups, to interact and talk with employees.

These discussions, I hope, will focus on the work you are doing. I want to be more familiar with you and your work.

I also am interested in your concerns. If you have a concern, raise it with your supervisor. If that person does not directly report to me, he or she can pass the concern to the direct report. During my regular meetings with the direct reports, I will talk about it with them.

To allow a greater opportunity for communication, I also plan to have occasional "skip level" meetings. The term "skip level" refers to skipping over management levels in the organization. These meetings will be with 12 to 15 people from various organizations across the Center.

In addition to opening the flow of communication, I want to spend more time on technical and programmatic interactions.

To better address technical issues at Marshall, we will continue the monthly project management forums sponsored by the Systems Management Office. I will volunteer to talk about the recommendations of the Mars Climate Orbiter board at a forum in the near future. I hope this will be a meeting where we can have some serious dialogue about the challenge of project management in today's environment.

Also, we will implement a monthly technical exchange forum where we can interact on some portion of our business on a technical level. Jim Kennedy, director of the Engineering Directorate, will organize this activity. I encourage technical managers to attend as many of these forums as possible. Topics for these meetings will be advertised in advance.

I am hopeful that these activities will help increase my ability to be more available to the Marshall team. We have a very challenging set of activities before us and communications is a key to success. Please feel free to more readily interact with me through one or more of these venues.

— Art Stephenson
Marshall Center Director

Government travel regulations change

The following changes to travel regulations are in effect:

• All government agencies are required to use the government issued credit cards (currently MasterCard) for travel related expenses. Most travelers at Marshall are already using the card, but for those who do not have a card, please call 544-7343 or e-mail Susan Thomas to request an application. The card is for official temporary duty only.

• All government agencies will be required to pay travelers interest on vouchers not paid within 30 days of the approving official's signature. Late fees charged by the credit card company as a result of an agency's delinquency in voucher payment are also reimbursable to the traveler. (Approving officials should pay close attention to this — these interest and late payment fees come directly from your travel budget. Travelers also should note that interest payments and penalty payments are considered income, therefore, reportable and taxable.)

• The credit card company can request salary offsets to accounts which become severely delinquent. This does not mean this will occur. Each instance will be reviewed.

The Center Operations Directorate will publish changes that occur with the American Express Reservations contract in the near future. For more information regarding regulation changes, call Tina Walker at 544-7291.

‘Planet in a test tube’ provides valuable data on atmospheres of planets and stars

by Tracy McMahan

NASA’s “planet in a test tube” experiment has shown that microgravity — the weightless environment inside an orbiting spacecraft — helps scientists create more accurate models of planetary atmospheres and oceans. Scientists recently published results from this Space Shuttle experiment in a NASA technical document.

Because scientists can’t yet travel to other planets, they build models like the “planet in a test tube” to simulate conditions on a planet. These sophisticated models help scientists study fluid movements in Earth’s atmosphere and oceans and on other more distant worlds.

NASA’s “planet in a test tube” — the Geophysical Fluid Flow Cell — was designed by Dr. John Hart, lead investigator for the experiment and a fluid physicist at the University of Colorado in Boulder. The experiment was flown on two Space Shuttle missions — in 1985 and 1995. During the second mission, Dr. Fred Leslie, a co-investigator on the experiment and a fluid physicist at Marshall, operated the experiment in space. Marshall’s Microgravity Research Program Office manages the Geophysical Fluid Flow Cell experiment.

“On the ground, it is impossible to create accurate models because Earth’s gravity produces unrealistic fluid behavior on the spherical model,” Leslie said. “In microgravity, you eliminate Earth’s gravity, and can do experiments with artificial gravity to verify mathematical and computer models of fluid flows in planetary atmospheres.”

NASA/Marshall Space Flight Center

During the second Space Shuttle flight of the Geophysical Fluid Flow Cell in 1995, Dr. Fred Leslie, right, operated the experiment in space. He changed experiment parameters to create models more like conditions on the Sun, Earth and other planets.

Inside the Geophysical Fluid Flow Cell, scientists created models of Earth’s climate and interior, the Sun’s atmosphere and the atmospheres of other planets. Detailed results of the Geophysical Fluid Flow Cell experiments are published in NASA Technical Memorandum, NASA-TP-1999-209-576, which is available on the Marshall Technical Reports Web site at: http://mtrs.msfc.nasa.gov/mtrs/

How do you simulate something as big as a planet? The heart of the Geophysical Fluid Flow Cell is a nickel-coated, stainless steel ball about the size of a Christmas ornament. The ball is placed under a synthetic sapphire dome, and silicone oil placed between the two

*See **Test Tube** on page 7*

Photo by Danny Reeves, NASA/Marshall Space Flight Center

Honored engineers

Marshall engineers received awards at the Engineer’s Council banquet held last Saturday at the conclusion of National Engineer’s Week. Carlton Foster, left, an aerospace engineer in the Structures, Mechanics and Thermal Department, received the Distinguished Engineering Achievement Award. Dr. Michael Polites, center, deputy manager of the Avionics Department, received the Engineer of the Year Award. Russ Mattox, a Marshall retiree who worked as a computer engineer in the Structures, Mechanics and Thermal Department, received the Outstanding Engineering Achievement Merit Award. Dr. Raymond G. “Corky” Clinton Jr., not present, a materials engineer in the Materials, Processes and Manufacturing Department, received the Distinguished Engineering Achievement Award.

Commercializing NASA

During a recent visit to Marshall, Daniel Tam, right, assistant to the NASA administrator for commercialization, examines a friction stir weld. It was demonstrated by Jeff Ding, left, and Chip Jones, center, both of Marshall's Materials Processes and Manufacturing Department.

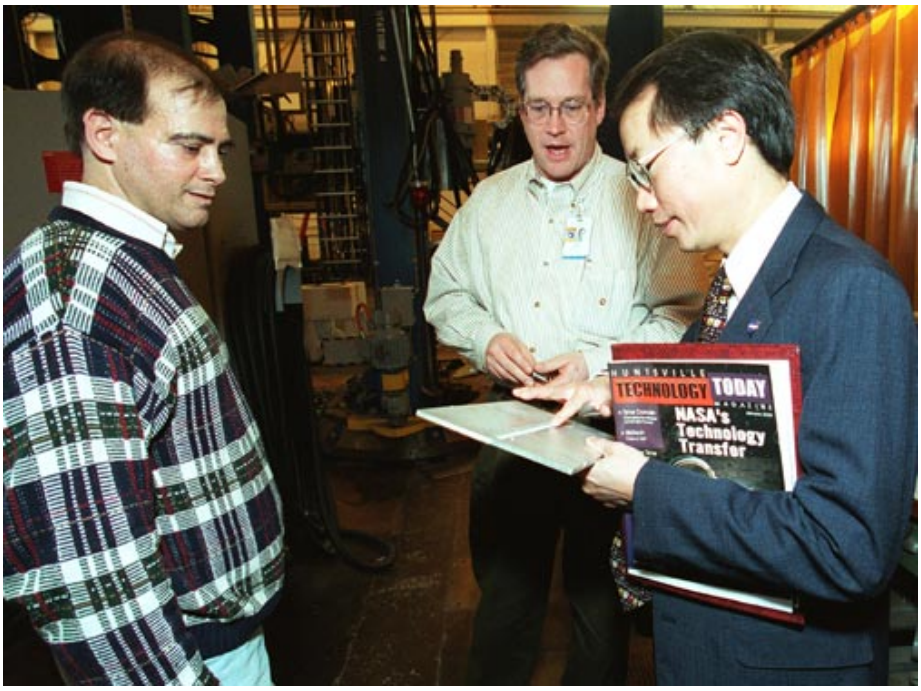


Photo by Emmett Given, NASA/Marshall Space Flight Center

Saving money meant higher cost

Marshall employee learns lesson on icy roads

by Andy Prince

Saturday, Jan. 22 dawned with the threat of freezing precipitation and snow. My wife and I were planning to attend a marriage retreat being sponsored by our church at Henry Horton State Park in Tennessee, a little over an hour drive from Huntsville.

As we headed north from southeast Huntsville, road conditions grew worse. Clear roads became icy and eventually snow covered as we progressed into Tennessee. We were in a front-wheel drive car and I had driven many times in similar conditions without incident, so I was not uncomfortable with the situation. We continued our journey, driving over two-lane rural roads, negotiating the curves and ice without a problem.

We were traveling along Highway 31A on the last leg of our trip, about 10 miles from our destination, when we encountered oncoming traffic. It was snowing and the road was slushy, but the route had been well traveled and this particular stretch was smooth and level, with a slight downhill grade.

I slowed to ease our car to the right, making sure I was well out of the way of oncoming vehicles. As I eased to the right, the car slid slightly in that direction. Surprised, I gently counter-steered to the right, correcting the slide and further slowed the vehicle.

Then the car counter-slid to the left, which was not uncommon or unexpected. I again corrected by turning the front tires into the slide. However, this time my car did not respond, and we went into a spin.

We went off the road backwards into a ditch on the right. The car went through the ditch and onto a fence, climbing the fence before turning upside down and landing in the ditch on the hood and windshield. We were wearing our seatbelts, and the accident occurred at the relatively slow speed of 35 mph. Fortunately, we were unhurt. With the assistance of a motorist who stopped to help, we crawled out of the car where the back window had been.

As I stood in the cold rain and sleet, I wondered what I had done wrong to cause the accident.

Witnesses confirmed that my speed was reasonable for the conditions. I didn't try to make any sudden movements with the car or apply the brakes. But as I looked at the overturned vehicle, I noticed that the tread on the rear tires was worn down to the wear indicators (those bands of rubber that run cross ways to the tread).

I was reminded of a decision that I had made last fall. At that time I noticed that the front tires were near the end of their useful life. However, the rear tires still had usable tread, so I decided to have the good tires put on the front and the poor tires put on the rear. Experts recommend you put the best tires on the front wheels of a front-wheel drive car. That decision was a direct cause of the accident.

When I slowed down, the weight shift to the front wheels combined with the lack of tread caused the rear tires to lose traction, resulting in an uncontrollable slide. My decision to save a few dollars by stretching the lifetime of the old tires resulted in much higher costs for car repair, increased insurance premiums and general aggravation.

The writer is a technical manager in the Engineering Cost Office.

Software of the Year

Marshall seeks nominations for annual competition

The annual call for nominations for the NASA Software of the Year Award, to give recognition to software developed and owned by NASA, has gone out.

Information about last year's winners and competition guidance is available on the Web at: http://www.hq.nasa.gov/office/codei/swy99win.html

The award will include a certificate signed by the NASA Administrator and a monetary award of up to $100,000. The award will be presented to author(s) of software in which NASA has an intellectual property interest; the software has been supported, adopted, sponsored or used by NASA; and the software is significant to the NASA mission. Software programs' experimental phases must have been completed.

Entries will be judged by the NASA Software Advisory Panel, comprised of software development experts from all NASA Centers and the Jet Propulsion Laboratory. After its review, the panel will submit its selection(s) to the Inventions and Contributions Board.

The NASA Form 1329 (ICB Space Act Award Application) must be completed for each entry. Copies of the software, sample applications, data and descriptive documentation of the package should be included, in addition to evidence demonstrating the impact, ease of use and degree of innovation and suitability of the entry.

For more information, call James J. McGroary at 544-0013 or Abbie Johnson at 544-0014. Entries and supporting material must be submitted no later than April 14. Each Center's top selection must be forwarded to the board by May 12.

Photo by Dennis Olive, NASA/Marshall Space Flight Center

Jazz Café

Kelley O'Neal, playing saxophone, and Shaun Pezant on keyboards, entertained employees during last Friday's lunch hour. The Jazz Café was the final event in Marshall's Black History Month celebration.

NEAR begins looking closely at asteroid Eros

Only a few days into the first close-up study of an asteroid, data from NASA's Near Earth Asteroid Rendezvous (NEAR) mission indicate that 433 Eros is no ordinary space rock.

Since the NEAR spacecraft met up with and began its historic orbit of Eros on Feb. 14, NEAR team members at the Johns Hopkins University Applied Physics Laboratory in Laurel, Md., which manages the mission for NASA, have pored over images and other early scientific returns.

It will take months to unravel the deeper mysteries of Eros, but data from NEAR's final approach and first days of orbit offer tantalizing glimpses of an ancient surface covered with craters, grooves, layers, house-sized boulders and other complex features.

"Work is just starting, but it's already clear that Eros is much more exciting and geologically diverse than we had expected," says Dr. Andrew Cheng, of the Applied Physics Laboratory, who serves as the NEAR mission's lead scientist.

Scientists now know that Eros' mass is 2.4 grams per cubic centimeter — about the bulk density of Earth's crust and a near match of the estimates derived from NEAR's flyby of Eros in December 1998.

"With this new data, it now looks like we have a fairly solid object," says radio science team leader Dr. Donald Yeomans of NASA's Jet Propulsion Laboratory in Pasadena, Calif. "There is no strong evidence that it's a rubble pile like Mathilde," the large asteroid NEAR passed and photographed in 1997.

Even without in-depth analysis, pictures snapped with NEAR's Multispectral Imager offer several clues about Eros' age and geography. The large number and concentration of craters point to an older asteroid, uniform grooves across its craters and ridges hint at a global fabric and, perhaps, underground layers.

In addition to numerous boulders, the digital camera also has captured brighter spots on the surface that NEAR scientists are anxious to study.

NEAR's Near-Infrared Spectrometer has picked up variations in the asteroid's mineral composition, possibly the proportions of pyroxene and olivine, minerals commonly found in meteorites.

Test Tube

Continued from page 4

simulates the atmosphere of Jupiter, the Sun or Earth's molten mantle, depending on the experiment conditions selected by scientists. A temperature-controlled turntable spins the dome — simulating planet rotation — and an electric charge between the dome and the sphere serves as artificial gravity.

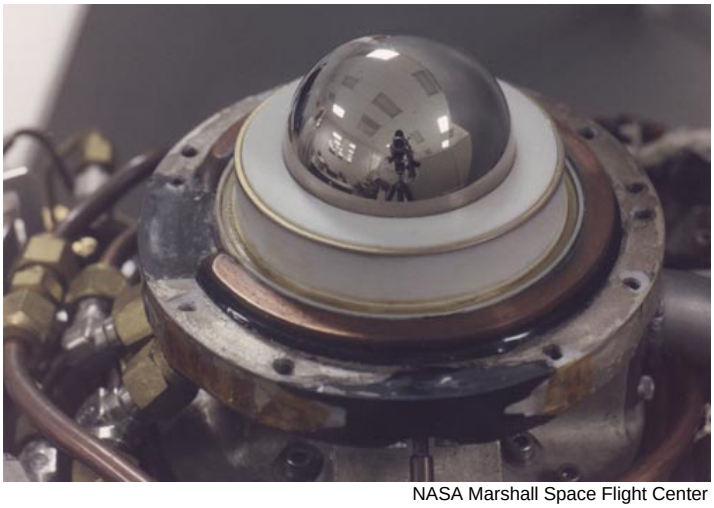
During the Geophysical Fluid Flow Cell's first flight, more than 100 experiments were conducted using the cell to simulate different conditions, and 50,000 images were recorded on 16-mm film.

"We were successful and made several observations of new convection patterns," Hart said. "Some of these are pertinent to our search for explanations of the key features, like zonal winds and jets, of Jupiter's atmospheric structure."

On the first flight, investigators didn't get to see what was happening inside their model until the Space Shuttle brought the film back to Earth. For the second flight, investigators added equipment so they could observe the model and change the parameters to create certain effects. Leslie was a payload specialist on the flight and operated the experiment in space.

"It was great to personally do the experiment," Leslie said. "The first flight was a little like running an experiment in the lab with the lights off. We had no indication how the fluid was responding to the inputs. During the second flight, both the scientists on the ground and I could see how the model changed as we changed parameters like rotation rate or temperature. Then, I could tweak the parameters to make the simulation more realistic."

During the second mission, 29 separate six-hour runs were completed with the Geophysical Fluid Flow Cell. "The influence of weightlessness on experiments was amazing to watch," Leslie said.



NASA Marshall Space Flight Center

This steel ball acted as the planet or stellar core inside the Geophysical Fluid Flow Cell flown aboard the Shuttle.

Dr. Tim Miller, another co-investigator on the experiment and an atmospheric scientist at the Global Hydrology and Climate Center, developed and used computer models to predict the flows seen in the Geophysical Fluid Flow Cell experiments. He hopes that lessons learned in the study of the fluid flow cell dynamics can be applied toward a better understanding of such topics as the movement of Earth's continents and atmospheric dynamics on Earth and other planets.

His model successfully predicted that final flow patterns for some of the very slowly rotating cases could depend on how the experiment is started. This may be an important point in the discussion of the movement of continents in response to the steady pull of the viscous mantle beneath the continental plates. "There's a lot more science that can be obtained with the data and the models," Miller said.

The writer, employed by ASRI, supports the Media Relations Department.

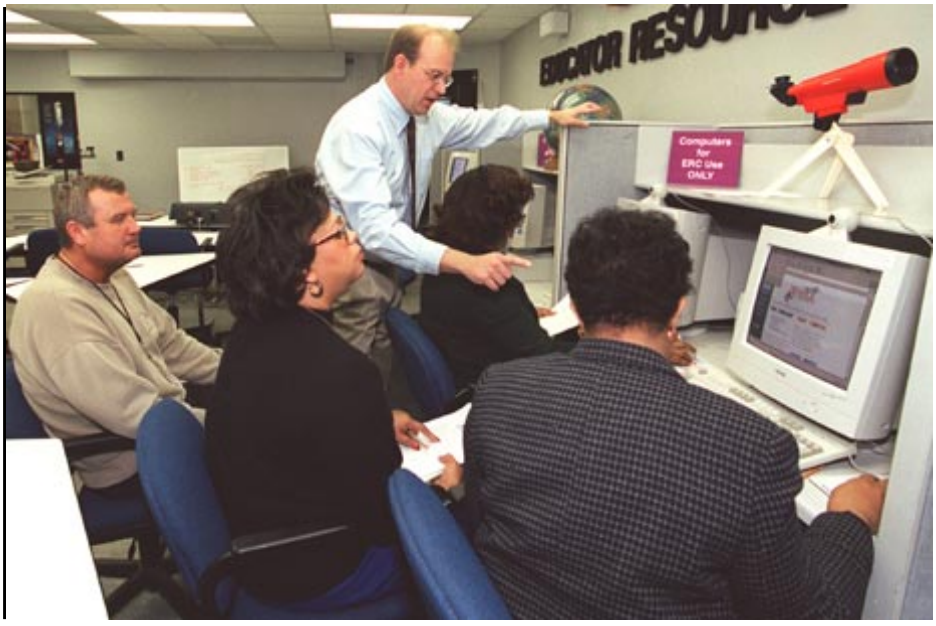


Photo by Emmett Given, NASA/Marshall Space Flight Center

High Technology

Billy Hix joins the Education Programs Department. He will work with various programs, specifically the Educator Resource Centers throughout Marshall's six-state region, and the educational technology team. At left, Hix, standing, works with Marshall Educator Resource Center personnel on computer matters. Hix is an educator from Motlow State Community College in Tullahoma, Tenn., were he has been an associate professor in computer science and teacher education classes for the past 16 years.

Employee Ads

Miscellaneous

★ Golf irons, Armour Titanium, Ti-100, 3-PW, graphite shafts, $200. 539-0094
★ 1997 Kawasaki Concours, 18K miles, risers, bra, hard bags, $5,500. 882-9407
★ Antique oak kitchen table, oval w/one leaf, 50"x36". 931-468-2440
★ IBM Selectric II typewriter w/correcting, $75. 233-5247
★ Science texts, $10 each; Radio Shack sleep machine, $10. 722-9483
★ Magnavox CD/radio/tape boom box, $30. 464-9014
★ Panasonic portable CD player, extra bass. 464-9014
★ 1990 Yamaha Venture Royale cruiser, 33K miles, V-4, 1300 cc, loaded. 851-6876
★ Boys khaki Lee pipes, size 5, khaki Levi jeans, size 6, Gymboree short set, size large, $12 ea. 533-5942
★ Roto-tiller, 5HP, B&S engine, $125. 881-4028
★ Antique oak dresser w/mirror, $575; chest of drawers, circa 1860s, $375. 881-0551
★ Antique S-C manual typewriter, $80. 722-9483
★ 1987 Searay Seville 19' cuddy cabin, EZ loader trailer, 165HP, inboard/outboard, full canvas top. 464-6933
★ Go-cart, 5HP, red, adjustable 2-seater, $300. 830-2806
★ Skis, Rossignal, 7S w/Salomon bindings, 194cm, $85. 880-8551
★ Two (Parisian) prom dresses, size 13/14, $75 each; Cardioglider; interactive Nintendo exercise bike, $60 each. 881-1090
★ MacIntosh Performa 200 computer; Apple Personal Laser-Writer printer; Nordic Track Pro-skier w/workout computer and book holder. 461-8077
★ Olympic weight set, 250 lbs., bench, $350; 5HP tiller engine, new, $150; Four go-cart tires and sprocket, $45. 883-4343
★ Piano, digital, Yamaha Clavinova CLP-350, 88 keys, $600. 772-3629
★ Men's leather walking shoes, new/never worn, 2 pr., brown and black, 9-1/2B, $80 per pair. 534-1275
★ MCAT/GRE preparation manuals, $3 each. 722-9483

Vehicles

★ 1987 Cadillac, burgundy, collector's item, $1.200. 582-5210
★ 1993 Chevy Cavalier station wagon, red, 107K miles, $3,500. 533-3912
★ 1988 Thunderbird Turbo, 185K miles, 5-speed, manual, white w/red leather interior, AM/FM cassette, $2,000. 233-3829
★ 1999 Mercury Grand Marquis GS, 5,127 miles, medium gray, $18,200. 883-2757
★ 1999 Explorer Sport, auto, extended warranty, $20,500; 1994 Ranger XLT, regular cab, 5-speed, $5,500. 828-9861
★ 1995 Chevy S-10, extended cab, V6, air, auto, ABS, AM/FM cassette, 30K miles, $11,500. 772-0605 leave message
★ 1990 Mercury Cougar XR-7, V-6, 5-speed, 103K miles, leather, $3,000. 230-0068
★ 1993 Miata, white/black cloth, a/c, PS/PB, well maintained, $6,450. 882-1780
★ 1995 Saturn SL2, 35mpg, all power, all leather, 86K miles, engine 10K miles, $7,300. 464-9664
★ 1999 Subaru Forester, 3K miles, $22,000. 881-0755
★ 1989 Blazer S-10, white, moon-roof, $2,500; 1973 Dodge, club-cab, needs transmission, $600. 883-8947
★ 1995 Ford, Crown Victoria LX, 4-door, Alloy wheels, ABS, cruise, PDL, 95K miles. 586-7375
★ 1989 Chevy Beretta GTU, white/red, V-6, automatic, power windows/locks, a/c, FM/AM/tape/CD, $3,950. 880-6337

Free

★ Brown, aluminum gutter, 70'. 883-8257

Wanted

★ Juicer to make vegetable and fruit juice. 881-6040
★ Book, "Delights of the Slide Rule", author: Clyde B. Clason, published 1964, 246 pages. 650-0500/leave message
★ Field utility trailer or dump trailer (w/sides and standard tires) for hauling compost. 776-9684

Found

★ Pager. Call 544-4758 to identify
★ Sunglasses. Call 544-4758 to identify
★ Eyeglass case. Call 544-4758 to identify

Center Announcements

☛ ***Bahama Cruise —*** Executive Tour and Travel Services, Inc. is offering a Grand Bahama Vacation Cruise-N-Stay package for Marshall employees, retirees and on-site contractors for $279 per person, based on double occupancy. Travel to Fort Lauderdale, Fla., is not included. The package includes a six-hour cruise from Ft. Lauderdale, Fla. to Freeport Grand Bahama Island including breakfast and lunch, three night's hotel accommodations at the Bahama Princess Resort & Casino and a six-hour moonlight dinner cruise back to Ft. Lauderdale. Port charges and service fees included. However, hotel tax and departure taxes are not included. A $159 deposit plus $6 for shipping and handling per couple must be made by March 31. Travel dates are good through March 2001. For more information, call 1-800-272-4707. Flyers are available at the Marshall Activities Building, 4752.

☛ ***Blue Cross/Blue Shield —*** The recent news release regarding the Wal-Mart pharmacies and Blue Cross/Blue Shield of Alabama does not apply to the Federal Blue Cross/Blue Shield of Alabama. This only applies to the state written policies. Federal Blue Cross/Blue Shield policies are written through Washington, D.C., Blue Cross and the Office of Personnel Management. You will not be required to transfer your prescriptions to another pharmacy. For more information, call Debbie Allen at (256) 544-7536.

☛ ***Easter Egg Hunt Volunteers —*** Volunteers needed to help with the annual Easter Egg Hunt sponsored by the NASA Exchange. The hunt will be held at 2 p.m. April 9 at the Marshall Picnic Area. The rain date will be 2 p.m. April 16. To volunteer, call Gena Marsh at 544-0128 or Donna Mahieux at 544-7511.

☛ ***Breast Cancer Awareness Fashion Show —*** The Designers Against Breast Cancer Fashion Show will be held at 7 p.m. Friday at the Huntsville Museum of Art. To purchase tickets, at $20 each, call 539-0001 or 536-1855. Proceeds go to the American Cancer Society.

☛ ***Photo Lab Retirees —*** Photo Lab retirees will meet at 9:30 a.m. March 7 at Shoney's at the corner of University Drive and Memorial Parkway. For more information, call Chuck Allen at 852-0917.

☛ ***Speech Craft Course —*** Beginning Thursday, there will be an eight-week Speech Craft Course presented by Toastmasters. The course will be each Thursday at 6 p.m. at Piccadilly Cafeteria in Madison Square Mall. Cost is $16. For more information, call 837-3143 or 852-0917.

☛ ***Astrionics Lab Retirees Meet —*** Retirees and friends of the Instrumentation Division Astrionics Lab will meet at 11 a.m. Tuesday at the Redstone Arsenal Golf Course Coffee Shop.

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